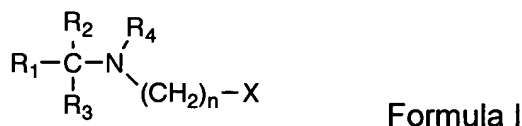


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A compound of the Formula I



wherein:

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16, or an alkenyl, alkynyl, alkoxy, alkylthio, or alkyl sulfinyl group having from 2 to 17 carbon atoms, wherein R₁ may be optionally substituted with one or more substituents selected from hydroxy, aldehyde, oxo, lower acyloxy, halogen, thio, sulfoxide and sulfone,

R₂ ((=)) is H, CH₃ or CH₂CH₃,

R₃ ((=)) is H or CH₃,

R₄ ((=)) is H or CH₃,

~~R₅ = lower alkyl having from 1 to 5 carbon atoms,~~

n is an integer in the range from 1 to 3,

~~and X is carboxyl (COOH), or carbalkoxy (COOR₅), cyano (C=N), phosphonic acid (PO₃H₂), phosphonate ester (PO₃[R₅]₂) or 5-tetrazole,~~

R₅ is lower alkyl having from 1 to 5 carbon atoms, and

R₁, R₂ and R₃ are each different so that the carbon atom to which they are attached is chiral and the compound of Formula I is as a substantially pure enantiomer in the R or S configuration or a pharmaceutically acceptable salt thereof.

2. (Currently amended) A compound of the Formula I according to claim 1 wherein:

$R_1 ((=)) \underline{\text{is}} (\text{CH}_2)_m\text{CH}_3$ where m is 0 or an integer in the range from 1 to 16,

$R_2 ((=)) \underline{\text{is}} \text{CH}_3$,

$R_3 ((=)) \underline{\text{is}} \text{H}$,

$R_4 ((=)) \underline{\text{is}} \text{H or CH}_3$,

~~R_5 = lower alkyl having from 1 to 5 carbon atoms,~~

n is an integer in the range from 1 to 3,

~~and X is carboxyl $(\text{COOH})_x$ or carbalkoxy (COOR_5) , cyano $(\text{C}=\text{N})$, phosphonic acid (PO_3H_2) , phosphonate ester $(\text{PO}_3[\text{R}_5]_2)$ or 5-tetrazole, and~~

R_5 is lower alkyl having from 1 to 5 carbon atoms,

or a pharmaceutically acceptable salt thereof.

3. (Currently amended) A compound of the Formula I according to claim 1 wherein:

$R_1 ((=)) \underline{\text{is}} (\text{CH}_2)_m\text{CH}_3$ where m is 0 or an integer in the range from 1 to 16,

$R_2 ((=)) \underline{\text{is}} \text{CH}_3$,

$R_3 ((=)) \underline{\text{is}} \text{H}$,

$R_4 ((=)) \underline{\text{is}} \text{H or CH}_3$,

~~R_5 = lower alkyl having from 1 to 5 carbon atoms,~~

n is an integer in the range from 1 to 3,

~~and X is carboxyl $(\text{COOH})_x$ or carbalkoxy (COOR_5) , cyano $(\text{C}=\text{N})$, phosphonic acid (PO_3H_2) , phosphonate ester $(\text{PO}_3[\text{R}_5]_2)$ or 5-tetrazole, and~~

R_5 is lower alkyl having from 1 to 5 carbon atoms,

as a substantially pure enantiomer in the R-configuration, or a pharmaceutically acceptable salt thereof.

4. (Currently amended) A compound of the formula I according to claim 1 wherein:

$R_1 ((=)) \underline{\text{is}} (\text{CH}_2)_m\text{CH}_3$ where m is 0 or an integer in the range from 1 to 16,

$R_2 ((=)) \underline{\text{is}} \text{CH}_3$,

R_3 ((=)) is H,

R_4 ((=)) is H or CH_3 ,

~~R_5 = lower alkyl having from 1 to 5 carbon atoms,~~

n is an integer in the range from 1 to 3,

~~and X is carboxyl ($COOH$), or carbalkoxy ($COOR_5$) cyano ($C\equiv N$), phosphonic acid (PO_3H_2), phosphonate ester ($PO_3[R_5]_2$) or 5-tetrazole, and~~

R_5 is lower alkyl having from 1 to 5 carbon atoms,

as a substantially pure enantiomer in the S-configuration, or a pharmaceutically acceptable salt thereof.

5. (Currently amended) A compound according to claim 3, wherein said compound of formula I is selected from the group consisting of:

(R)-3-(2-Heptylamino)propionic acid;

(R)-3-[N-(2-Heptyl)-N-methylamino]]propionic acid;

Methyl (R)-3-(2-heptylamino)propionate;

Methyl (R)-3-[N-(2-heptyl)-N-methylamino]]propionate;

~~(R)-2-(2-Pentylamino)acetonitrile;~~

~~(R)-2-(2-Pentylmethylamino)acetonitrile;~~

~~(R)-3-(2-Heptylamino)propionitrile;~~

~~(R)-3-(2-Heptylmethylamino)propionitrile;~~

~~(R)-2-(2-Pentylamino)ethanephosphonic acid;~~

~~(R)-2-(2-Pentylmethylamino)ethanephosphonic acid; and~~

(R)-2-(2-Heptylamino)ethane-5-tetrazole.

6. (Currently amended) A compound according to claim 4, wherein said compound of formula I is selected from the group consisting of:

(S)-2-(2-Heptylamino)acetic acid;

(S)-2-[N-(2-Heptyl)-N-methylamino]]acetic acid;

Methyl (S)-2-(2-heptylamino)acetate; and

Methyl (S)-2-[N-(2-Heptyl)-N-methylamino]}acetate;
~~(S)-2-(2-Heptylamino)acetonitrile;~~
~~(S)-2-(2-Heptylmethylamino)acetonitrile;~~
~~(S)-2-(2-Heptylamino)ethanephosphonic acid; and~~
~~(S)-2-(2-Heptylmethylamino)ethanephosphonic acid.~~

7. (Currently amended) A compound selected from the group consisting of:

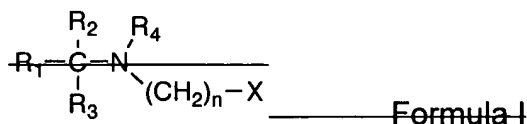
2-(1-Hexylmethylamino)acetic acid;
3-[N-(2-Propyl)-N-methylamino]}propionic acid;
Methyl 2-[N-(2-propyl)-N-methylamino]}acetate;
Methyl 2-[N-(1-hexyl)-N-methylamino]}acetate; and
Methyl 3-[N-(1-hexyl)-N-methylamino]}propionate;
~~2-(1-Hexylamino)acetonitrile;~~
~~2-(1-Hexylmethylamino)acetonitrile;~~
~~3-(3-Pentylamino)propionitrile;~~
~~3-(3-Pentylmethylamino)propionitrile;~~
~~2-(2-Propylamino)ethanephosphonic acid; and~~
~~2-(2-Propylmethylamino)ethanephosphonic acid.~~

8. (Previously amended) A compound according to claim 1 in the form of a hydrochloride salt.

9. (Previously amended) A compound according to claim 1 wherein m is an integer from 1 to 12.

10. (Previously amended) A compound according to claim 1 wherein m is an integer from 1 to 9.

11. (Currently amended) A composition for the treatment or prevention of a disease in which cell death occurs by apoptosis, which composition comprises an effective amount of a compound having the formula I as claimed in claim 1:



wherein:

~~R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16, or an alkenyl, alkynyl, alkoxy, alkylthio, or alkyl sulfinyl group having from 2 to 17 carbon atoms, wherein R₁ may be optionally substituted with one or more substituents selected from hydroxy, aldehyde, oxo, lower acyloxy, halogen, thio, sulfoxide and sulfone,~~

~~R₂ = H, CH₃ or CH₂CH₃,~~

~~R₃ = H or CH₃,~~

~~R₄ = H or CH₃~~

~~R₅ = lower alkyl having from 1 to 5 carbon atoms,~~

~~n is an integer in the range from 1 to 3,~~

~~and X is carboxyl (COOH), carbalkoxy (COOR₅), cyano (C=N), phosphonic acid (PO₃H₂), phosphonate ester (PO₃[R₅]₂) or 5-tetrazole,~~

~~as a substantially pure enantiomer in the R or S configuration or a pharmaceutically acceptable salt thereof, in admixture with a suitable diluent or carrier.~~

12. (Currently amended) A composition according to claim 11, wherein:

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16,

R₂ (=) is CH₃,

R₃ (=) is H,

R₄ (=) is H or CH₃,

~~R₅ = lower alkyl having from 1 to 5 carbon atoms,~~

n is an integer in the range from 1 to 3,

and ~~X is carboxyl (COOH), carbalkoxy (COOR₅), cyano (C≡N), phosphonic acid (PO₃H₂), phosphonate ester (PO₃[R₅]₂) or 5-tetrazole, and~~

R₅ = lower alkyl having from 1 to 5 carbon atoms

~~or a pharmaceutically acceptable salt thereof, in admixture with a suitable diluent or carrier.~~

13. (Currently amended) A composition according to claim 11, wherein said compound of formula I is selected from the group consisting of:

(R)-3-(2-Heptylamino)propionic acid; and

(R)-3-[N-(2-Heptyl)-N-methylamino]]propionic acid;

Methyl (R)-3-(2-heptylamino)propionate;

Methyl (R)-3-[N-(2-Heptyl)-N-methylamino]]propionate;

~~(R)-2-(2-Pentylamino)acetonitrile;~~

~~(R)-2-(2-Pentylmethylamino)acetonitrile;~~

~~(R)-3-(2-Heptylamino)propionitrile;~~

~~(R)-3-(2-Heptylmethylamino)propionitrile;~~

~~(R)-2-(2-Pentylamino)ethanephosphonic acid;~~

~~(R)-2-(2-Pentylmethylamino)ethanephosphonic acid; and~~

(R)-2-(2-Heptylamino)ethane-5-tetrazole.

14. (Currently amended) A composition according to claim 11, wherein said compound of formula I is selected from the group consisting of:

(S)-2-(2-Heptylamino)acetic acid;

(S)-2-[N-(2-Heptyl)-N-methylamino]]acetic acid;

Methyl (S)-2-(2-heptylamino)acetate; and

Methyl (S)-2-[N-(2-heptyl)-N-methylamino]]acetate;

~~(S)-2-(2-Heptylamino)acetonitrile;~~

~~(S)-2-(2-Heptylmethylamino)acetonitrile;~~

~~(S)-2-(2-Heptylamino)ethanephosphonic acid; and~~

~~(S)-2-(2-Heptylmethylamino)ethanephosphonic acid.~~

15. (Currently amended) A composition for the treatment ~~or prevention~~ of a disease in which cell death occurs by apoptosis, which composition comprises an effective amount of a compound selected from the group consisting of:

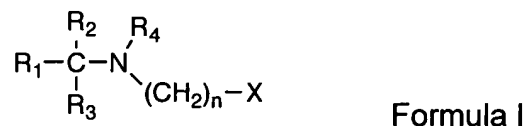
2-[N-(1-Hexyl)-N-methylamino]}acetic acid;
3-[N-(2-Propyl)-N-methylamino]}propionic acid;
Methyl 2-[N-(2-Propyl)-N-methylamino]}acetate;
Methyl 2-[N-(1-Hexyl)-N-methylamino]}acetate; and
Methyl 3-[N-(1-Hexyl)-N-methylamino]}propionate;
~~2-(1-Hexylamino)acetonitrile;~~
~~2-(1-Hexylmethylamino)acetonitrile;~~
~~3-(3-Pentylamino)propionitrile;~~
~~3-(3-Pentylmethylamino)propionitrile;~~
~~2-(2-Propylamino)ethanephosphonic acid; and~~
~~2-(2-Propylmethylamino)ethanephosphonic acid~~
in admixture with a suitable diluent or carrier.

16. (Previously amended) A composition according to claim 11, wherein the compound of formula I is in the form of a hydrochloride salt.

17.-23. (Previously cancelled)

24. (Withdrawn) A commercial package for the treatment or prevention of a disease in which cell death occurs by apoptosis, said package comprising a pharmaceutical composition according claim 11, together with instructions for use in the treatment or prevention of diseases in which cell death occurs by apoptosis.

25. (Currently amended, withdrawn) A method for the treatment or prevention of a disease in which cell death occurs by apoptosis comprising administering an effective amount of a compound of formula I to an animal in need thereof, wherein said formula I:



wherein:

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16, or an alkenyl, alkynyl, alkoxy, alkylthio, or alkyl sulfinyl group having from 2 to 17 carbon atoms, wherein R₁ may be optionally substituted with one or more substituents selected from hydroxy, aldehyde, oxo, lower acyloxy, halogen, thio, sulfoxide and sulfone,

R₂ = H, CH₃ or CH₂CH₃

R₃ = H or CH₃

R₄ = H or CH₃

R₅ = lower alkyl having 1 to 5 carbon atoms

n is an integer in the range from 1 to 3,

and X is carboxyl (COOH), carbalkoxy (COOR₅), cyano (C≡N), phosphonic acid (PO₃H₂), phosphonate ester (PO₃[R₅]₂) or 5-tetrazole, or a pharmaceutically acceptable salt thereof.

26. (Previously added, withdrawn) A method according to claim 25, wherein

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16,

R₂ = CH₃,

R₃ = H,

R₄ = H or CH₃,

R₅ = lower alkyl having 1 to 5 carbon atoms,

n is an integer in the range from 1 to 3,

and X is carboxyl (COOH), carbalkoxy (COOR₅), cyano (C≡N), phosphonic acid (PO₃H₂), phosphonate ester (PO₃[R₅]₂) or 5-tetrazole, or a pharmaceutically acceptable salt thereof.

27. (Previously added, withdrawn) A method according to claim 25 wherein the compound of the Formula I is a substantially pure enantiomer in the R configuration.

28. (Previously added, withdrawn) A method according to claim 25 wherein the compound of the Formula I is a substantially pure enantiomer in the S configuration.

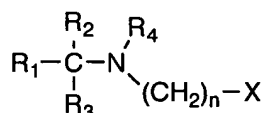
29. (Previously added, withdrawn) A method according to claim 25 wherein said compound of Formula I is selected from the group consisting of:

2-(2-Propylamino)acetic acid;
2-(1-Hexylamino)acetic acid;
(S)-2-(2-Heptylamino)acetic acid;
3-(2-Propylamino)propionic acid;
3-(1-Hexylamino)propionic acid;
(R)-3-(2-Heptylamino)propionic acid;
2-(2-Propylmethylamino)acetic acid;
2-(1-Hexylmethylamino)acetic acid;
(S)-2-(2-Heptylmethylamino)acetic acid;
3-(2-Propylmethylamino)propionic acid;
3-(1-Hexylmethylamino)propionic acid; and
(R)-3-(2-Heptylmethylamino)propionic acid;
2-(2-Propylamino)acetonitrile;
(R)-2-(2-Pentylamino)acetonitrile;
2-(1-Hexylamino)acetonitrile;
(S)-2-(2-Heptylamino)acetonitrile;
(R)-3-(2-Heptylamino)propionitrile;
2-(2-Propylmethylamino)acetonitrile;

(R)-2-(2-Pentylmethylamino)acetonitrile;
2-(1-Hexylmethylamino)acetonitrile;
(S)-2-(2-Heptylmethylamino)acetonitrile;
(R)-3-(2-Heptylmethylamino)propionitrile;
2-(2-Propylamino)ethanephosphonic acid;
(R)-2-(2-Pentylamino)ethanephosphonic acid;
(S)-2-(2-Heptylamino)ethanephosphonic acid;
2-(2-Propylmethylamino)ethanephosphonic acid;
(S)-2-(2-Heptylmethylamino)ethanephosphonic acid; and
(R)-2-(2-Heptylamino)ethane-5-tetrazole.

30.-31. (Cancelled)

32. (Previously presented) A method for the treatment of a disease in which cell death occurs by apoptosis comprising administering an effective amount of a compound of formula I to an animal in need thereof, wherein said compound of formula I is:



Formula I

wherein:

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16, or an alkenyl, alkynyl, alkoxy, alkylthio, or alkyl sulfinyl group having from 2 to 17 carbon atoms, wherein R₁ may be optionally substituted with one or more substituents selected from hydroxy, aldehyde, oxo, lower acyloxy, halogen, thio, sulfoxide and sulfone,

R₂ is H, CH₃ or CH₂CH₃,

R₃ is H or CH₃,

R₄ is H or CH₃,

n is an integer in the range from 1 to 3,

and X is carboxyl (COOH), carbalkoxy (COOR₅) or 5-tetrazole, and

R₅ is lower alkyl having 1 to 5 carbon atoms,

or a pharmaceutically acceptable salt thereof, and wherein the disease is selected from the group consisting of stroke, head trauma, Bell's palsy, spinal cord injury, Alzheimer's disease, Parkinson's disease, Pick's disease, amyotrophic lateral sclerosis, Huntington's disease, multiple sclerosis, cardiac myopathies, nephropathy, retinopathy, diabetic complications, glaucoma and idiopathic neuropathies.

33. (Previously presented) A method according to claim 32, for the treatment of a human.

34. (New) A method according to claim 32, wherein

R₁ is (CH₂)_mCH₃ where m is 0 or an integer in the range from 1 to 16,

R₂ is CH₃,

R₃ is H,

R₄ is H or CH₃,

n is an integer in the range from 1 to 3,

X is carboxyl (COOH), carbalkoxy (COOR₅) or 5-tetrazole, and

R₅ is lower alkyl having 1 to 5 carbon atoms,

or a pharmaceutically acceptable salt thereof.

35. (New) A method according to claim 32 wherein said compound of Formula I is selected from the group consisting of:

2-(2-Propylamino)acetic acid;

2-(1-Hexylamino)acetic acid;

(S)-2-(2-Heptylamino)acetic acid;

3-(2-Propylamino)propionic acid;

3-(1-Hexylamino)propionic acid;

(R)-3-(2-Heptylamino)propionic acid;

2-[N-Methyl-N-(2-propyl)amino]acetic acid;
2-[N-(1-Hexyl)-N-methylamino]acetic acid;
(S)-2-[N-(2-Heptyl)-N-methylamino]acetic acid;
3-[N-(2-Propyl)-N-methylamino]propionic acid;
3-[N-(1-Hexyl)-N-methylamino]propionic acid;
(R)-3-[N-(2-Heptyl)-N-methylamino]propionic acid;
and
(R)-2-(2-Heptylamino)ethane-5-tetrazole.